

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 19, 2017

**TO:** S. A. Stokes, Technical Director  
**FROM:** P. Fox and D. Gutowski, Hanford Resident Inspectors  
**SUBJECT:** Hanford Activity Report for the Week Ending May 19, 2017

**PUREX Plant.** The contractor continued work to recover from last week's storage tunnel collapse (see Activity Report 5/12/2017). Their primary efforts focused on preparation for the installation of a cover over the entire length of tunnel one. The cover is intended to limit water intrusion and the potential for a spread of contamination should another section of the tunnel structure fail. Activities included development and approval of work instructions and a critical lift plan, fabrication and delivery of the cover, equipment demonstrations, a cover deployment mock up, radiological surveys, removal of interferences, rerouting of power and establishment of other conditions to support the work, and delivery and placement of equipment that will be used during cover installation. The contractor expects to complete the installation this weekend.

**Tank Farms.** The contractor's Corrective Action Review Board approved the Root Cause Analysis Report for the ignition control TSR violation in AW-102 (see Activity Report 12/9/2016). They concluded that the ignition control program lacks features needed for successful implementation including a baseline list of components to which ignition controls apply, evaluation of these components, and linkage of evaluations to the components. They also noted, as a contributing cause, that the extent of condition review from a 2014 ignition control violation had a focused scope that did not capture the component involved in the 2016 violation (see Activity Report 7/18/2014).

During removal of a thermocouple from AX-102, more than a gallon of liquid drained into the containment sleeving. The unexpected liquid was initially contained by the sleeving. It was subsequently removed to a bag with absorbent.

The contractor briefed ORP personnel on the technical basis to correlate beryllium concentration with radioactivity. Based on radionuclide and beryllium inventories per tank, the document provides a smearable contamination level that can be used as a screening value for potential beryllium contamination for the majority of tanks. The nine remaining tanks have different criteria. Field implementation is expected in June.

**Effluent Treatment Facility.** The resident inspectors walked down the Liquid Effluent Retention Facility with ORP and contractor radcon personnel. The contractor is removing the cover on Basin 43, inspecting and performing any needed repairs of the basin liner, and will install a new cover. The contractor's Joint Review Group has approved the work package.

**Plateau Remediation Contractor.** RL determined that contractor's Safety Analysis and Risk Assessment Handbook (SARAH) conflicts with current DOE nuclear safety standards and rescinded their approval for use of the handbook to develop DSAs or TSRs. The letter further states that RL expects the contractor to submit all future safety basis documents for Hazard Category 1, 2, or 3 nuclear facilities using the requirements established in Title 10 Code of Federal Regulations (CFR) 830, Subpart B, and the listed methodologies in Appendix A, Table 2, of 10 CFR 830.